
SOFTWARE SUSTAINABILITY AND ACQUISITION REFORM



U.S. AIR FORCE

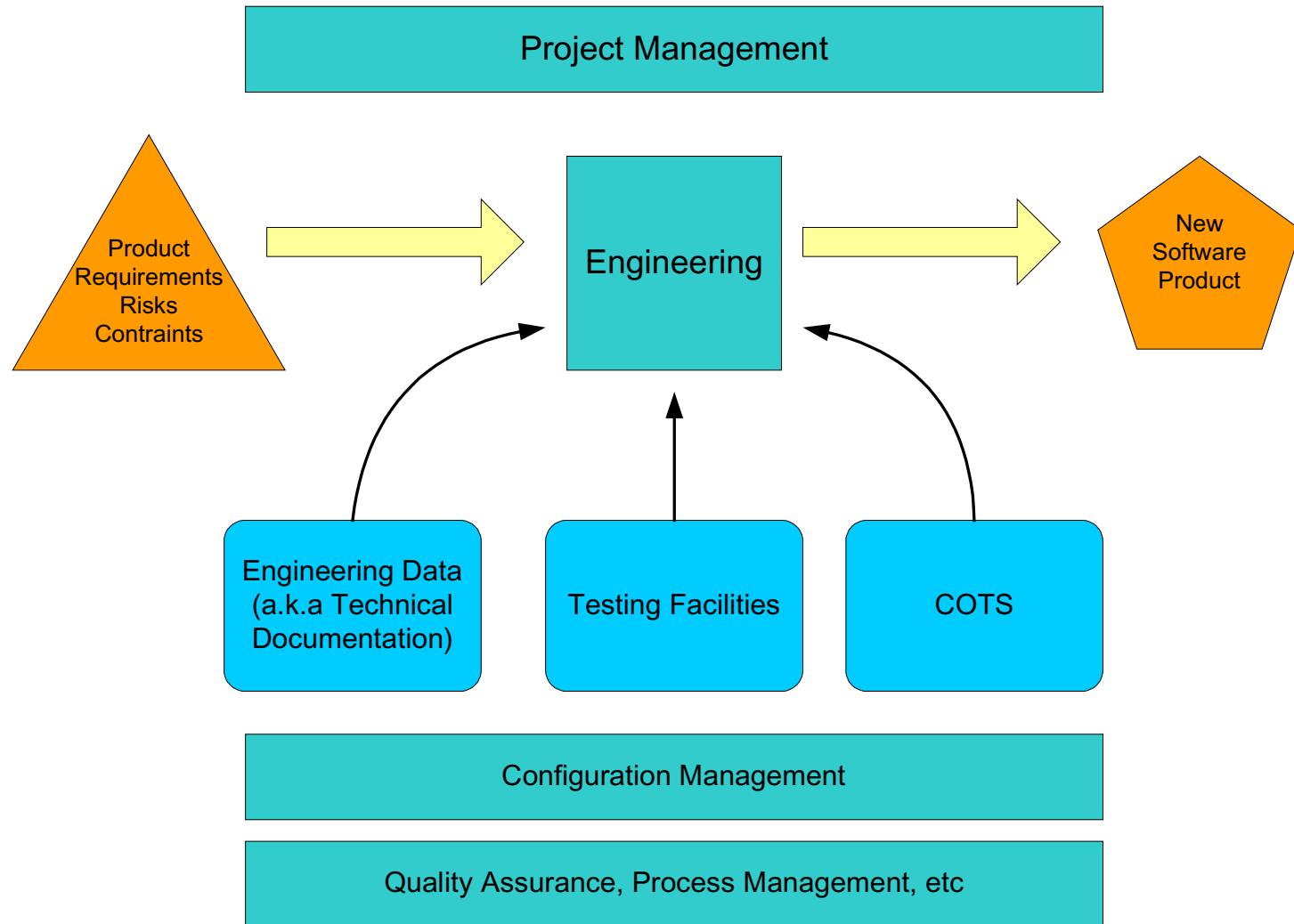
**A VIEW FROM
THE BOTTOM**

28 Jan 03

**David R. Corder
OC-ALC/MAS, DSN 336-3632
David.Corder@tinker.af.mil**

Integrity - Service - Excellence

Report Documentation Page			Form Approved OMB No. 0704-0188	
<p>Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p>				
1. REPORT DATE 28 JAN 2003	2. REPORT TYPE	3. DATES COVERED 00-00-2003 to 00-00-2003		
4. TITLE AND SUBTITLE Software Sustainability and Acquisition Reform: A View from the Bottom			5a. CONTRACT NUMBER	
			5b. GRANT NUMBER	
			5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)			5d. PROJECT NUMBER	
			5e. TASK NUMBER	
			5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Oklahoma City Air Logistics Complex, OC-ALC/MAS, Tinker AFB, OK, 73145			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)	
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 14
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	19a. NAME OF RESPONSIBLE PERSON	



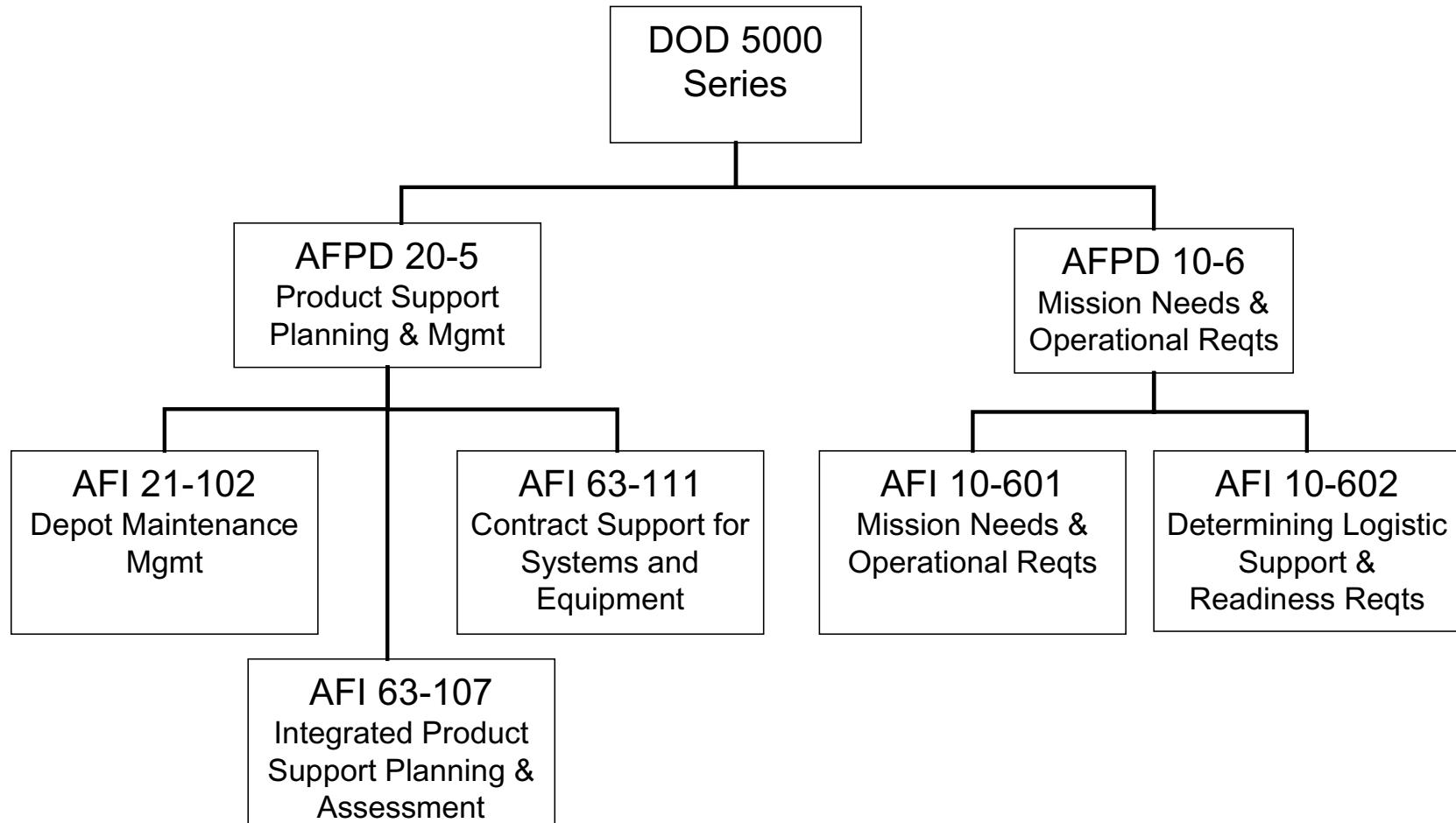
Software Acquisition Fact of Life



**WITH SUFFICIENT DEVELOPMENT TIME AND
RESOURCES, SOFTWARE CAN ALWAYS BE
PRODUCED WITH HIGH QUALITY THE FIRST TIME**

**WE HAVE KNOWN FOR 30 YEARS HOW TO
DEVELOP SOFTWARE**

Logistics Planning



Policy and Principles



FLEXIBLE

PERFORMANCE BASED

DECENTRALIZED RESPONSIBILITY

INNOVATIVE

TAILORED

SYSTEM ENGINEERING

REDUCED CYCLE TIME

TOTAL SYSTEM APPROACH

Software Acquisition – What Happens



- **RESOURCES**
- **COTS**
- **SUSTAINMENT**
- **TOO MUCH HELP FROM WELL MEANING,
BUT UNINFORMED PEOPLE**

Observations



- NO POLICY ON SUSTAINMENT
- NO REQUIREMENT TO VERIFY SUSTAINMENT
- ACQUISITION POLICY DOESN'T REQUIRE SOFTWARE FOCUS
- TOO MANY OPPORTUNITIES TO DELAY SUSTAINMENT
- TAILORING TRANSLATES TO ELIMINATE

What Should We Do?



- **MANAGE SOFTWARE AS A CRITICAL ACQUISITION ELEMENT**
- **ACQUIRE SUSTAINMENT CAPABILITY FOR TOTAL SYSTEM**
- **TREAT COTS AS ANOTHER SYSTEM REQUIRING SUPPORT**

TEAM TINKER



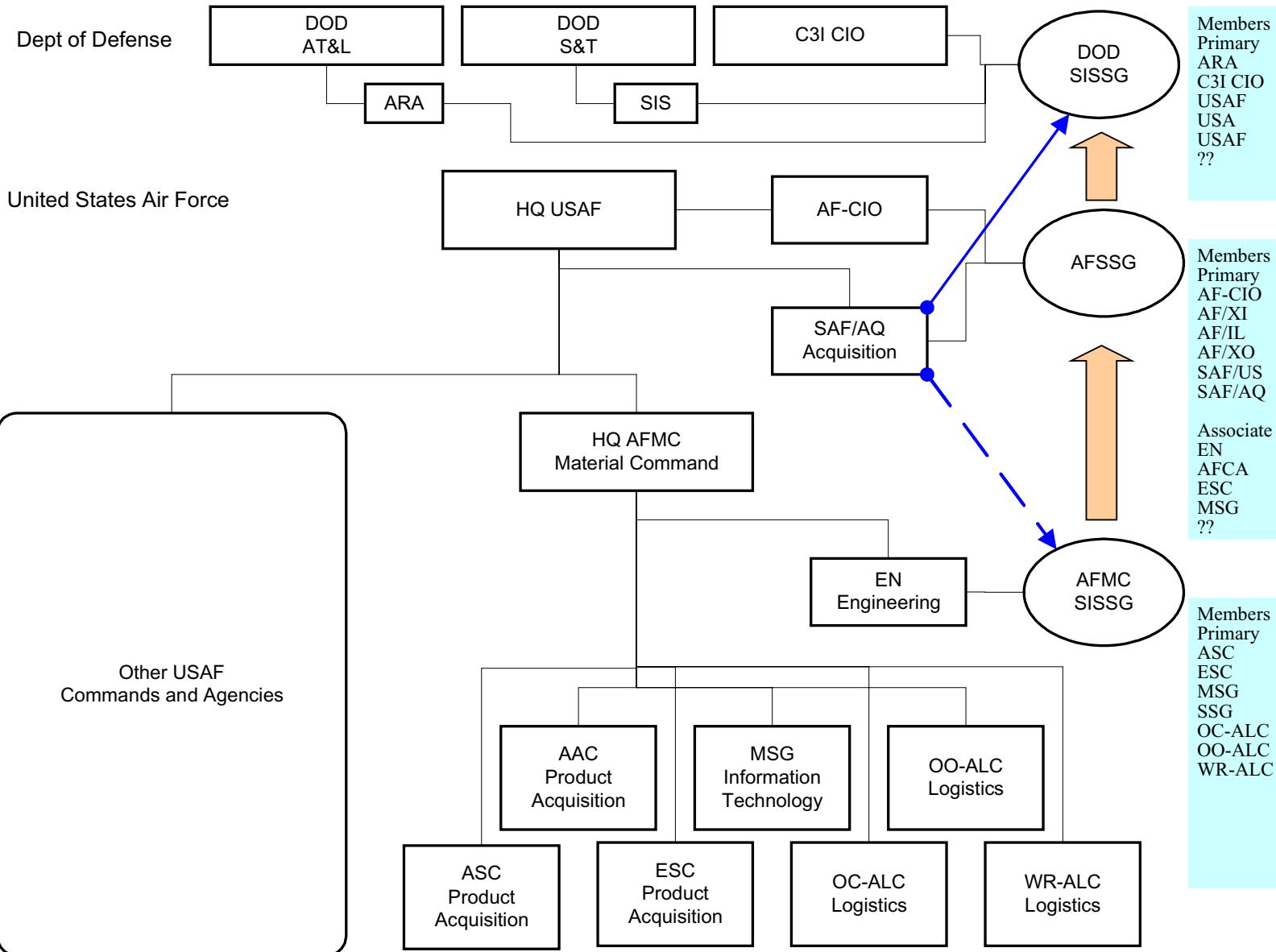
U.S. AIR FORCE

Constant Wind Shifts



- DOD 5000 Series documents undergoing regular changes. General trend to less guidance and more “flexibility”
 - We tend to see this as more opportunities to mess up
 - Latest and most radical change is near release
 - Leverage Flexibility More Training & Experience
- See disconnects between DOD and Service Instructions
 - Not much time for high level changes to filter into lower level practice
- A lot of old practice still done due to older more experienced staff still around. As they go problems tend to show up. Due to civilian demographics risk is to see more problems develop
 - Although there is growing low-level pushes for process
- Software is largely ignored in major Service policy instruments. Been a major issue of debate over the years

Software Cross Cutting Issues Flow



Concerns



- AFMC SISSG has focused on Weapon System software.
- AFSSG & DOD SISSG tend to focus on IT software and some Systems Engineering
- HQ & DOD SSG idea is new organizational formations. Relationships in flux. AFMC SISSG has existed in several forms over many years.
 - Lesson learned: SSGs prosper when software is hot topic otherwise tend to fade away
- SSGs are advisory groups. They do not make policy.

Recent Topics



- **AFMC SISSG**
 - S/W Sustainment Questions for SECAF
 - Programming Languages
 - Training
 - Staffing
 - Quality of S/W Product Engineering Data
 - System Architecture – Affordable, Sustainable, Long lasting
 - SMARTS & PM Sustainment Indicators
 - ASC Acquisition S/W Process Guidebook
 - Group Organization & Long Term Strategy
- **AFSSG**
 - Getting organized
- **DOD SISSG**
 - CMMI
 - Acquisition Training
 - Program Cost Metrics
 - Linking 5000 & 8500 series
 - Independent Expert Reviews